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NUMISMATIC NOTES AND MONOGRAPHS

COIN HOARDS

By SYDNEY P. NOE

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
NEW YORK
1920

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NOTES & MONOGRAPHS

The Sacking of a City, from a Burgundian Tapestry.

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COIN HOARDS

By Sydney P. Noe

There is no branch of numismatics which would have a greater appeal to the average man than the study of hoards and treasure trove. To some it will cause surprise that such material should need study. Not so to the archaeologist or the historian, who often has had reason to be grateful for the data supplied by coin finds. The presentation of some of the causes of hoarding and of the deductions we may draw from recovered buried treasure is submitted that the value of some of these results may be made clearer.

We Americans, probably because we are without many opportunities of such a nature this side of the water, find this subject of especial interest. To be sure, the treasuries of the Incas of Peru which

have been unearthed included the precious metals in many forms but nothing that has been identified as currency. The tumuli of the Maya and Aztec civilizations of Central America will some day yield rich returns to the investigator, but the material heretofore secured is archaeological or ethnological, and, like that of Peru, has included little of a numismatic nature. In both cases, the finds are more closely analogous to those of ancient Egypt where the accounts often prove more thrilling than fiction. It stimulates the imagination to read of unrifled tombs where lie haughty princesses of long ago. Their jewels and the implements of their daily life were placed near at hand in readiness for the after-world, but food and drink were considered more necessary than gold. Only with the burials of the later and least interesting period does numismatic material occur. This is owing to the fact that the early money of the Egyptians consisted of bullion in an unminted form whose exchange value was determined by weight. During the Per-

sian domination, the darics and sigloi of the invaders seem to have been in use to a limited degree, but finds show also that the early coinage of the Greeks circulated to a much more considerable extent.

Although finds of coin do not occur in this country as frequently as in Europe, one of the basic causes of these burials, hoarding, is not so foreign to our experience as might be supposed. Only when a hoard has been buried is there a chance of its becoming treasure trove and we are not accustomed to burying our savings. Civilization has accustomed us to other means of safekeeping, and experience has approved them satisfactory. In the cities, our savings are placed in banks or safe deposits. Let there be a run on the bank, however, and we see a return to primitive conditions — deposits are withdrawn as quickly as possible; and until confidence in some other institution overcomes the distrust caused by the failure, money is hoarded just as carefully as it was in the time of the Greeks and Romans. When we turn from a section remote from city

life, to districts far removed from the conveniences which civilization affords, there is little difference from the procedure of the Ancients. Among the miners, hiding gold-dust becomes a necessity. So even to-day hoarding is not as exceptional a thing as it is thought.

In its essence, hoarding is a habit. Although paper money and banks have made it much less common, one of its milder forms tends to confirm it as an instinct only a little less deeply rooted than that of preservation of life itself. There is hardly one of us who has not caught himself picking from a handful of change some of the new pieces designed by Weinman, MacNeill and Fraser and spending first the corresponding specimens of the earlier and far less attractive coinage. It must be conceded that this is a very mild form of hoarding, but so universal is this tendency and so far reaching is it in its results, that economists have formulated it as a law. It is known as Gresham's Law and was so named after the Commercial Adviser of Queen Elizabeth.

"In every country where two kinds of legal money are in circulation, the bad money always drives out the good."

That this was merely a re-expression of something recognized by the Greeks we learn from Aristophanes (Frogs vv 718–726, Brunck's ed.), who, using the practice to point a moral, says

"The public has often seemed to us to treat the wisest and the best of our citizens just as it does old and new coins. For we do not use (spend) the latter (new, uncirculated coins) at all except in our own houses or abroad, though they are of purer metal, finer to look at, the only ones that are well coined and round; on the contrary, we prefer to use (spend) vile copper pieces, struck and stamped in the most infamous fashion."

The explanation of our preference for new or fine coins, offered by the distinguished French economist Gide (Political Economy, Veditz' Second American Edition, 1909, p. 238), is worth quoting:

"Money is not destined, like other wealth, either for our consumption or for production, but solely for exchange. Of two fruits, we prefer the more luscious; of two watches, the

one that keeps the better time. But of two pieces of money, unequal in quality, it matters little to us whether we use the one or the other; they are not for our personal use, but only employed to pay our creditors and our tradesmen. Hence, it would be foolish to use the better money for this purpose; on the contrary, it is to our interest to choose the worse, and this is precisely what we do. Our choice is of course conditioned upon the assumption that the creditor or tradesman shall not have the right to refuse inferior money; in other words, the bad money must have paying power as well as the good. When this is the case, *i.e.* whenever both kinds of money are legal tender, Gresham's law is applicable.

"This explains why bad money continues in circulation, but not why good money disappears. Where does the good money go? It disappears in three different ways: by *hoarding, payments abroad, sales by weight.*"

Now, since hoarding is one of the initial causes of coin burials and, consequently, of coin finds, it may be well to consider it further. Let us bear in mind that although Gide was writing from the standpoint of modern rather than of ancient history, the universality of the practice makes his words applicable to very early

periods, and coin finds confirm this. To quote further:

"When people want to put money aside for possible emergencies, *i.e.* when they want to keep it for themselves, they do not pick out the bad pieces to save. On the contrary, *they choose the best*, because these offer the best security. The panic-stricken people who wished to hoard money during the French Revolution did not waste their time saving depreciated paper money, — the so-called assignats, — but laid aside gold coins. The contemporaries of our Revolutionary War did not save the next to worthless 'continental' paper money, but whatever metallic money they could get hold of. Banks do the same thing, preferring to increase their supply of good rather than that of poor money. In this manner a considerable amount of the good money may disappear from circulation."

Gide's conclusions, moreover, are worth repeating. We find good money being driven out by bad.

a) "Whenever worn money is in circulation with *newly coined* money. It was in this case that the law was first discovered by Sir Thomas Gresham. New coins had been struck to take the place of those in circulation, which were greatly depreciated (far more by clipping than

by wear); and it was noted with dismay that the new coins disappeared speedily, while the old ones seemed to be more abundant than ever. Unless a government resorts to frequent recoinages, it will encounter great difficulties in replacing old and abraded coins by new ones.

b) "Whenever *light money* is in circulation together with good money or even when good money is in circulation together with heavy money, in this case the lighter money drives out the other."

A singular working out of Gresham's law has occurred in France as a result of the late war. Because of the let-up in silver production, without any diminishing of the demand, the value of silver had risen until the bullion value of silver coins in our own, and in most of the European countries, was above the face value of the coin. As a result, the silver pieces have been disappearing from circulation, the melting pot being their presumable destination. As each issue of the French mint appeared, the coins were speedily absorbed and seen no more.

To meet this condition, a rather novel plan was announced by the French mint on

April 15, 1920. Instead of continuing the issuing of silver coins, the French Chambers of Commerce are putting out a token coinage, guaranteeing the redemption of these metal tokens by deposits at the Bank of France. Not only should this reduce the incentive to hoarding and make the melting of the new coins no longer profitable, but it should gradually bring a reduction in the price of silver by decreasing the demand.

Since May 1920 the price of silver has fallen considerably. One contributing cause is doubtless the changing of the standard for India from a silver to a gold basis, thus eliminating one of the largest markets for silver. The action of the French authorities as described above is probably another contributing element as is also the decision of Great Britain to reduce the quantity of silver in subsequent coinages. With the incentive to return to the pre-war mining output, the supply is likely to become normal. All these factors have doubtless contributed towards the fall in the price.

With this fall, inducement to hoarding passes and a return to usual conditions will in all likelihood follow gradually.

If during the stringency, however, some peasant of rural France, distrusting the banks and fearing a panic, should have buried his savings, this hoard would afford a true reflection of these conditions. The currency from which it would be possible to make his savings, could not but evidence the scarcity of coined money in circulation, and in countless ways, the measures to which the French financial authorities were driven to meet conditions, would be demonstrated. It is this unconscious testimony of coin finds, as I trust we shall see, that provides us with some of our most valuable information.

BURYING

Only hoards that are buried are likely to become treasure trove. Therefore, it is with imperishable metallic currency that we are concerned. As we have seen, modern conditions have tended to remove the incentives to hoarding. These circum-

stances have so become a part of our daily life that it requires an active imagination to conceive the contrasts under which the ancient peoples lived. Every man was his own banker. The Greeks and Romans did have bills of credit and bankers of standing. A few transactions were arranged through bankers without a transfer of money, but owing to the difficulties of travel and the need for protection in even the most highly civilized sections, the guarding of one's wealth was a very important part of the civic life. They had much less money to handle and this increased rather than lessened the care with which it was guarded. It is recorded that the Greek soldier received as his pay a daric for a month's service.

In a very interesting lecture by the eminent Dr. George Macdonald, read before the Royal Philosophical Society of Glasgow in 1903, he analyzes three of the causes why hoards are buried, as assigned in the Digest: Profit, Safety and Fear. Reasoning very carefully, Dr. Macdonald points out that only in the event of the death of the

owner, would any hoard buried either for profit or safety, be likely to have been unearthed. With the third motive, Fear, however, we have a different reaction, and fear was an ever-present element in the life of the ancient people.

We cite two of Dr. Macdonald's illustrations:

"When Cassius captured Rhodes, he confiscated not only all the bullion belonging to the state or dedicated in the temples, but the gold and silver of all private citizens as well. The result promised to be disappointing. For, Appian tells us, when the alarm was first given, the citizens had gone and concealed most of their money. Cassius, however, was not to be over-reached. He offered large rewards for the discovery of hidden hoards, and inflicted the death penalty on those who had concealed them. When the Rhodians saw that the victor was not to be trifled with, they begged for an extension of the time for the surrender of their property. This was granted, and thereupon, says Appian, a very much larger quantity of money was forthcoming — 'some digging it up from holes in the ground, others drawing it from the bottom of wells, others again producing it from graves.' What happened at Rhodes in 42 B.C., must often have happened elsewhere.

The laws of ancient warfare took little regard of the rights of private property, and in times of danger a most natural instinct would lead men to bury their treasure underground, seeing that it would no longer be safe in their houses. When the storm burst, some of those who had thus concealed their goods would be slain or carried into captivity, leaving unclaimed deposits to be turned up centuries afterwards by the spade of the workman or the plough of the peasant.

"I said that the instinct to bury treasure underground in times of danger is a most natural one. . . . I suppose that everyone will agree that there never was a more 'human' man than Mr. Samuel Pepys. His diary for the early days of June, 1667, reflects the alarm caused throughout London and all over England by the Dutch raid on the Thames. On the 10th their ships were at Sheerness, 'and we do plainly at this time hear the guns play.' Again on the 13th. 'No sooner up but hear the sad news confirmed of the Royale Charles being taken by them, and now in fitting by them . . . and turning several others; and that another fleet is come up into the Hope. Upon which newes the King and the Duke of York have been below (London Bridge) since four o'clock in the morning, to command the sinking of ships at Barking Creeke, and other places, to stope their coming up higher: which put me into such a fear, that I presently resolved

of my father's and wife's going into the country: and, at two hours' warning, they did go by coach this day, with about Thirteen Hundred Pounds in gold in their night bag. Pray God give them good passage, and good care to hide it when they come home! But my heart is full of fear. They gone, I continued in fright and fear what to do with the rest.' A little later in the day he decided. 'I did, about noon, resolve to send Mr. Gibson away after my wife with another 1,000 pieces, under colour of an express to Sir Jeremy Smith.' I shall not quote further, but simply refer you to the Diary for the sequel. The money was duly buried in the garden as Pepys had instructed, but the manner of doing it was not at all to his mind, and led to one of the little matrimonial differences which he so faithfully records. Under dates, Oct. 10th, 11th, 12th, of the same year, you will find full details as to the troubles he encountered in digging it up again."

As an additional illustration of the reasons for secreting treasure, I submit the evidence offered by a Burgundian tapestry, dating from 1400–1450, in the possession of the Metropolitan Museum of Art. The subject is the sacking of a city. From the analogy which the incidents offer to the description of the sacking of Jerusalem as

Container of the Southants Hoard.

Detail of Burgundian Tapestry.

given by Josephus, it is somewhat hesitatingly identified as such, and the presence of a portable tabernacle, possibly intended to represent the Ark of the Covenant, lends color to this identification.

Whether the intended subject is the sacking of Jerusalem or not need hardly concern us at present. More pertinent is the close following of the description given by Josephus (Wars of the Jews, Book V, Chapters 10 and 13). The distinguished historian relates that after the capture of Jerusalem, many of the Jews swallowed pieces of gold and jewelry to prevent them from falling into the hands of the Romans. The conditions which resulted when this knowledge came to the ears of the Roman general are such as were depicted in the tapestry. The chest of golden vessels should be noted as well as the host apparently awaiting treatment similar to that accorded the kneeling figure in the central foreground. The frontispiece enables us to dispense with a description of the gruesomeness of the scene. One wonders whether the victims may not have

served as a terrible example in the hope that there would result an unearthing of treasure similar to that described in connection with the capture of Rhodes. Certainly, there seems to be a free passing of coin from hand to hand.

That such conditions were far from uncommon in those early days we may well believe. What wonder then that the savings of the people were buried? When for any reason the owner succumbed in battle or as a victim of chance, his hidden savings have become the source from which we now derive so much benefit.

FINDINGS

In considering conditions which conduce to hoarding, as well as the reasons for the burial of the hoards once they have been made, an interesting question arises as to whose property such a hoard is when it is discovered. What have been the laws regarding treasure trove throughout the countries of Europe in which finds are common?

We have a very satisfactory knowledge of the Roman law, and it is interesting to note that the Romans considered the question with characteristic thoroughness. The very liberal law established by Hadrian is known to us in what is practically its actual wording. According to its ruling, a private individual became the owner of treasure discovered on his property. If, however, he discovered the treasure on another person's land, the finder shared equally with the owner in the division, and this held good even though the land on which the discovery was made belonged to the State. The laws varied with the changing Emperors, most of them claiming a portion of any treasure discovered. A brief summary of the laws among the Romans was published in the Numismatic Chronicle, 1902, by Messieurs A. Blanchet and H. A. Grueber.

During the Middle Ages, the King claimed a right to treasure unearthed in his dominions, although sometimes his rights were assigned in behalf of one to whom the land had been given in fief.

Thus, Henry II granted to the Monastery of Ramsey

"To receive sac and soc (the right of holding a court), thol and theam (market and the issue of the bondsmen), forstal (the intercepting on the highway), blodwith (a fine paid as a compensation for bloodshed) and the *finding of treasure;* and likewise all other privileges which belong to the King."

The decrees of St. Louis assigned treasure trove of gold to the King, but of silver to the Baron. The working out of this, however, is very indefinite and we may well believe that except with finds of exceptional value no word ever reached the ears of the authorities.

For England, Blackstone's definition will bear quotation as the foundation principle:

"Treasure is where any money, coin, gold, silver, plate, or bullion, is found hidden in the earth, or other private place, the owner thereof being unknown. And in such a case, the treasure found belongs to the Crown; but if he that hid it be known or afterwards found out, the owner, and not the Sovereign, is entitled to it. It is the hiding, and not the abandonment,

that gives the King the property; for if a man scatters his treasure into the sea or upon the surface of the earth, it belongs not to the Sovereign, but to the first finder. Formerly, indeed, treasure trove, whether hidden, lost, or abandoned, belonged to the finder; but afterwards it was judged expedient, for the purposes of the State, and particularly for the coinage, to allow part of what was so found to the King — which part was assigned to be all *hidden* treasure, as distinguished from such as was either casually lost or designedly abandoned by the former owner."

It is the working out of the later adaptation of this excellent English law which has provided the material for the exceptionally complete arrangement of the early coinage of the British Isles. England is in advance of most other European countries in this regard. Under the present laws, the Crown claims the right to treasure trove, but a fairly liberal offer is made to the finder who fully and promptly reports a discovery and turns the whole of it over to the authorities. The basis of the finders' reimbursement is no longer the bullion value of pieces comprised in the find, but their antiquarian value. This has re-

sulted in making it to the interest of the finder to report his discovery to the authorities. Thereby, he receives much more than would be the case if he merely melted it for its metal content, a procedure preferable under the former conditions because it dispensed with the interference of the authorities. When a find is received at the Treasury, it is forwarded to the British Museum and there classified. Pieces desired for the National Collection are set aside and paid for at their market value; the remainder, also, is valued and returned to the Treasury for such disposal in the coin market as seems wise. The result of this procedure is that finds come to the British Museum in their entirety. Being able to study them with the knowledge that the complete hoard is present is a consideration difficult to overestimate.

In France, under a law of 1887, the State assumes ownership of every object found in its domain upon consideration of refunding one-half its value to the finder. In Italy, also, the State possesses the right

of preëmption, but as the indemnity offered by the State is small, the result is unsatisfactory. Finds of treasure instead of being reported are concealed from the authorities, and any scientific benefit that would come from knowledge of the contents is thus lost. Although in Asia Minor excavations have been carried out on a broad scale, the officiousness of the Turks has made it difficult to derive much information regarding finds unless they are small enough to escape the attention of the officials.

Receptacles in which hoards are hidden vary widely. The smaller hoards are usually found in earthen jars; often, they are broken in the finding, but the protection they have afforded accounts for the unusual condition in which some of the ancient coins come down to us. Sometimes the vessel is of bronze, and if the soil be a dry one, the oxidation of the jar may not have advanced to such an extent that its contents are affected. In one case the jar had so disintegrated that the weight of the gold coins it contained was

greater than it could stand, and the gold pieces fell like Danae's shower when it was raised. In another case, a small hoard was found protected by a horn, and in one other instance, about a pint of small coins was discovered in a leathern bag further protected by a broken iron pot. Hoards have sometimes been brought to light by the washing away of a river bank or the blowing down of a tree. One of the strangest discoveries was made when an old oak beam which had been stacked away for years after its removal from a demolished building was split for firewood; a hole which was filled with English gold coins was disclosed, and a little further along in the same beam a second hole also filled with gold coins was found. As may be imagined, this brought a very pretty question as to the ownership of the coins. In the British Isles, finds have been discovered in wooden boxes, but these are hardly likely to last over very many centuries. Like bags of cloth, they vanish, leaving the material they contain subject to the action of the soil.

Container of the Vourla Hoard.

The places in which hoards are found vary almost as much as the containers for them. One might think that remote and secluded hiding places would be sought, and this is often true. One find was buried in the crater of an extinct volcano. Another was found eight feet below the surface of the bed of a river while excavating for a new bridge at Bologna. In this case, it was surmised that the owner must have been drowned and that a change in the bed of the river had accumulated that amount of earth. During the war of 1914–1918, several hoards were discovered in digging trenches.

The difficulties of concealing some of these hoards must have been considerable, for the hoard of Brescello is said to have contained eighty thousand aurei, all struck between the years 708 and 716 of the Roman era. Finds are frequently discovered while digging foundations in the modern survivals of ancient cities. Frequent finds have been made in this way at Taranto. The varying conditions, manifold forms and peculiar circumstances

which surround each coin find, make them fascinating subjects of study. They are being utilized more and more by numismatists but even yet their value is not fully realized.

CONDITION

From the specimens which we see in the cabinets of collectors, we are apt to form a very incorrect opinion of the condition of coins when they occur in hoards. Gold coins show effects of burial least. None of the soil acids have sufficient strength to affect gold, and any incrustations are easily removable. Only when in very rare cases the mass has been subjected to compression sufficient to flatten or deface the pieces, are the gold coins likely to show change.

With silver the condition is in contrast, but when the hoard is protected by an earthen or metal container, and when it is buried in a soil that is not moist and which does not contain chemical agents, especially sulphur or chlorine, the surface of the piece would in all probability not show

Encrusted stater of Alexander the Great.
American Numismatic Society's Collection.

any very considerable change. If, however, the burial is made in a volcanic region, the pieces are often found massed together and it is all but impossible to separate them. Often the silver shows pittings or other surface imperfections, but usually enough of the coins are legible to enable the classification of the others. Some of the thin incuse staters of Magna Graecia show a crystalline transformation of the metal. As a result, the coins are so brittle that they break easily.

As for bronze in its many forms, (brass, aurichalchum, copper and pieces plated with a light coating of silver) — it suffers most of all. Whenever any moisture is present, oxidation soon takes place, and frequently the bronze coins in a hoard will be matted together into a hopeless mass. Often, they are covered with verdigris, and sometimes it is impossible to free them from the accretions. Occasionally, however — and this is especially true with the many forms of Roman bronzes — they take on a patina which age alone can give. In some places there

results a beautiful turquoise blue, in others a rich warm green, while elsewhere a deep brown tone is acquired. Occasionally lead pieces are found, but, unless they have been very carefully protected, they oxidize and crumble.

In dating coin finds, a great deal of stress is laid upon the condition of the pieces. Those which show the least signs of wear are likely to be the latest in the find. The term *fleur-de-coin* (flower of the die, literally) is used to indicate a piece which shows no sign of wear, and which is, therefore, approximately as it appeared when it left the die. Here, Gresham's law comes into play again, for in making a hoard under ordinary conditions, the brightest and freshest pieces are the ones which would be retained; and as bright coins are likely to be the most recent, the burial of the hoard is presumably to be dated within a short time after such pieces were struck. If there occur pieces of one or more cities whose coinages have been chronologically arranged, and the *fleur-de-coin* pieces

Mass of encrusted Roman bronze coins.
American Numismatic Society's Collection.

in the hoard confirm one another, then there is strong evidence for dating the burial shortly after such coins were struck. With the absence of contradictory evidence on the part of other pieces in the find, one may with confidence rely upon the conclusions thus reached.

Obviously, some of the most important deductions drawn from coin finds are chronological. The reason is apparent when we recall that not until a late period were the Greek coins dated, and that the Roman coins of the Imperial period are dated according to the annual Tribunician Power conferred upon the Emperor. The Consular issues, of course, are without such dating, and in placing these in their proper order, finds have been an indispensable aid. The indications of style are too slight to serve as criteria, and the long list of moneyers includes too many names of those who never achieved enough distinction to entitle them to a place in historical records. Hoards of these denarii are of frequent occurrence. With the coming of the Goths and Vandals, and

throughout the Dark Ages, the coinage of Europe is rarely dated, with the exception of the dinars and dirhems of the Arabs. These are dated from the year of the Hejira (the Flight of Mahommed, 622 A.D.), and as they circulated widely throughout the Christian as well as in the Moslem world from 800–1400 A.D., they aid greatly in placing the other coins with which they are found.

It is hardly necessary to point out the value of having the coins of a city or State arranged in consecutive order. With the Greeks, such arrangement demonstrates their artistic growth from an archaic to a fine style and thence to the decadence of Hellenistic times, for, as has been said again and again, Greek coins form the grammar of Greek Art. The history of the innumerable city states is clarified, especially when the names of the local magistrates begin to appear, as on the late Athenian tetradrachms (229 B.C. to the time of Augustus). In addition, there are valuable sidelights on the life of the people. Coins late in a

series will frequently afford an explanation of types used centuries before. A single instance of the classifying value of finds is submitted.

For many years it has been an open question whether the coins of Lacedæmon with the archaic votive statue of Apollo and some of the succeeding types belonged to Sparta or to Alaria in Crete, the ΛΑ under the second attribution being considered retrograde. The authorities were divided, and the style offered no assistance. Within the past twenty years, a hoard found in Sparta has definitely established that these coins have nothing to do with Crete.

Aside from these reasons, the chronological ordering is desirable if only for the dating of further finds. It is to classifications such as have been outlined above, that we turn for information in approximating the dates of new finds — Head's coinage of Syracuse for Sicily; of Boeotia for Central Greece; Gardner's 'Elis'; Evans' 'Horsemen of Tarentum' for Magna Graecia; Mommsen and Haeberlin for Pre-Imperial Rome; Sir John

Evans for Early British Coinage; Schlumberger for the Bracteates — all these are of greatest importance in establishing a date for the burial of a hoard in which occur any pieces of the respective series of which they treat. These wonderful arrangements are edifices into which have been built all the knowledge and experience of their authors. Not always is the reasoning which has governed the arrangement given; in many cases it would unduly burden the reader. The stanchness of the whole, however, is its best claim to consideration as a sound piece of construction. Style, fabric, types, peculiarities of inscription, magistrates' and artists' signatures — all these internal evidences are utilized to the fullest extent, while external data, obtained from contemporary writers or monumental inscriptions, is combined with information derived from finds and hoards, to bring about the final result. The ordering of these bits requires the nicest logical discrimination and a freedom from bias such as few investigators possess."

The confirmative value of finds can best be demonstrated by a supposititious case. If we assume three finds each containing coins of one city, and assume again that all three may be dated from the issues of other cities included in the finds, and that these datings mark an interval of fifty years, it is evident that the types occurring in Find B, which are not in A, are likely to have been issued during the interval of fifty years which separates them. This will, also, hold for Find C as compared with B. By arranging these pieces in three groups, it will be seen that we have a criterion of style enabling the interpolation of other types which do not occur in these finds. With information from other sources and the internal evidences of the coins themselves, we may by all these means arrive at an ordering which will meet with general acceptance.

Commercial lessons which we may draw from hoards promise to be of very great value, but, with comparatively few exceptions, they have not yet been

realized. The whole matter of commerce has hardly been given sufficient weight in our consideration of the early coinages. Babelon shows (Traité, Tome I, Parte I, pp. 23, 24) that it has been possible to mark out the commercial routes of the mediaeval merchants from the evidence provided by finds, coupled with the confirmation which the geography of the country supplies. Thus, we know from the hoards of oriental coins throughout Austria, Russia and Sweden the overland route which the Arabs took to reach a far-away Scandinavian market. One of such of these finds numbered over eleven thousand Arab dinars.

Monsieur A. Blanchet has given an admirable demonstration of this use of finds in his very carefully studied essay, 'Recherches sur l'Influence Commerciales de Massalia, en Gaule et dans l'Italie Septentrionale,' Revue Belge 1913. He lists and describes 117 different finds in which the coins of Marseilles, which began as a Greek colony, occur. From the evidence of these finds, he is able to sketch

not only the growth of the commercial influence of the metropolis of Southern Gaul, but to demonstrate the successive steps in its growth. This is possible because the neighboring people imitated the type of Massalia, and by locating the occurrence of these imitations, he is able to define the limits reached by the merchants of this city; and from the types imitated, approximately the time their influence reached this section. His conclusions are borne out by the coincidence that the finds occur along the line of the least geographical resistance.

Most of the deductions which we have been discussing as having been drawn from finds of coins are quasi-historical, and because it is very difficult to distinguish between the information drawn from the finds and that derived from the coins themselves, it seems unwise to insist upon that point in this connection. Let us bear in mind that the ancient coins, especially with the Greeks and Romans, are each of them a historical document. We have for an illustration the confirmative

value of the findings of various hoards of coins along the line of the wall built by the Romans across the northern part of England to prevent the incursions of the Picts. These have contributed to the discovery of traces of that wall. In its political phases, finds have clarified some of the many troublesome questions as to the extent of the mediæval principalities in Germany and Central Europe.

ANADOL FIND

There are a number of finds of great importance to the history of numismatics, and a brief mention of some of these will not be out of place. One such occurred near Anadol, a little town in Bessarabia, in 1895. Some peasants, when excavating, discovered a bronze vase containing nearly a thousand gold coins of the period of Alexander the Great. What was more important than the number, was the fact that among the 979 pieces which were secured for the Coin Cabinet of the Hermitage, there were 457 varieties, and

of these, 174 had not been previously recorded. The addition to our knowledge of symbols and monograms was very considerable, and Müller's work on this coinage was made obsolete by the Anadol Find.

AURIOL HOARD

This find was made in 1867. It consisted of 2130 silver coins all uninscribed and all of the Archaic Greek style. They were discovered in an earthen vase. Auriol is only a short distance from Marseilles. The question arose immediately — were these then the earliest coins of that Greek Colony? Although numismatists have not been able to agree in their conclusions about the find, Monsieur Babelon's résumé of the evidence is made with his characteristic thoroughness, and there is slight reason for doubting the date he assigns for the burial (later than 480 B.C. and probably between 470 B.C. and 460 B.C.). Fortunately, a selection of almost all the varieties was secured for the Paris Cabinet where they are avail-

able for study. Monsieur Babelon's account includes the record of finds of similar coins, and his position with regard to them is in all probability the one which will have the widest acceptance.

Le Trésor d'Auriol, et les Principales Trouvailles de Monnaies Grecques Primitives en Occident. Traité — Vol. I, Part 2, pp. 1569–1584.

BOSCOE REALE FIND

Sometimes the circumstances surrounding a find date it absolutely, and then we have a very different angle of approach.

Bosco Reale lies on a slope of Mount Vesuvius and, together with Pompeii and Herculaneum, was buried in the eruption of 79 A.D. One of the villas was unearthed in 1895 in an unusual state of preservation. The wall paintings of the cubiculum of a neighboring estate excavated a few years later are now exhibited in the Metropolitan Museum of Art, New York City. The portion of the treasure consisting of well-preserved vessels of silver in high relief was purchased and given

to the Louvre. This treasure of silver vessels and jewelry was discovered in one of the small rooms in the villa, and not far away there lay a stretched-out body — perhaps the owner, possibly only a faithful slave left on guard. As part of the treasure, there was a small chest containing more than a thousand aurei ranging from the issues of Augustus to those of Domitian. Knowing that the catastrophe took place in the year 79, we have a valuable indication of the types which passed current at that date. It was noticeable that the pieces of Augustus and Tiberius were more numerous than would have been expected and that they were worn smooth through circulation while those of the other and later Emperors were in the finest condition. We have here, then, a burial which was accidental rather than due to fear, and not in the strictest sense a hoard at all. Presumably, it consisted of the "ready money" in possession of the owner of the estate.

VICARELLO HOARD

Some hoards suggest that they have been buried for reasons which do not give evidence of fear as the determining motive. Such a one was the hoard of Vicarello unearthed as long ago as 1852, on the site of some hot springs which seem to have been noted for their healing qualities from very early times. The hoard consisted not only of the heavy early bronze coinage of Rome and Central Italy, but coins of the South Italian Greek cities as well. The interval covered by the pieces in the find was great; and the probability is very strong that we have in this case offerings made to the Divinity of the hot springs by those who had benefited there. Whether or not the accumulation was the result of a practice such as maintains today among travellers in Rome who drop their small coin into the waters of the Fountain of Trevi we cannot be sure, but this seems likely. The occurrence of the early crude bronze pieces of the Romans among the others has been

accepted as prima facie evidence of their use as currency. Macdonald gives another instance of a similar nature — the find in Coventina's Well at Carrawburgh, a station on the line of Hadrian's wall.

SAIDA FIND

Saida is a small port on the Syrian coast of the Mediterranean and was the site of a find of which an entirely satisfactory explanation has never been offered. In the garden of a country estate, in 1820, a find was exhumed, which from report seems to have been of considerable size. Such was the fear of the authorities, however, that the hoard was secretly sold to jewelers and probably the greater part of it was melted. Twenty-three years later, in 1852, in the same garden, a second find was made within a few feet of the site of the first. There were three leaden vases, each containing about twelve hundred gold pieces. The local authorities put into prison those who were suspected of having had anything to do with

the discovery, but their high-handed procedure obtained for them only about eighteen hundred pieces, which were sent to Constantinople. The total number of pieces in the lot must have been over three thousand; they included staters and double staters of Alexander and staters of Philip II. In 1863, that is, eleven years later, a third discovery was made in this same garden within a short distance of the spot on which the other two were discovered. As with the second find, the money was enclosed in three vases of lead of the same size as the others but different in shape. Each contained about twelve hundred pieces. Two held staters of Alexander the Great only; the third, other staters as well. Had it been possible to secure these three hoards intact and to have had an accurate description of them, it is very probable that we could have arranged the gold coinage of Alexander the Great completely.

BLACKMOOR HOARD

This find consisted of close to thirty thousand coins which were enclosed in two earthen pots near Woolmer Common in Hampshire. Evidences of a battle in the neighborhood, together with its size, lend color to the conjecture that this may have been the military chest of Allectus, the successor of the "Emperor" of Britain, and that it was buried just previous to his last fight, 296 A.D. The hoard is interesting because of the number of pieces of the two emperors whose coins were the latest of those present. Of Allectus, there were ninety, comprising ten varieties, and of his predecessor, Carausius, 545 specimens, comprising 160 varieties. The reign of each was brief — presumably, most of their issues were present in the find.

ECONOMY HOARD

It may seem fitting to close with the account of an American hoard which offers some points of contrast with those already mentioned.

The town of Economy, Pa., is situated on the Ohio River not far from Pittsburgh. It was the home of a community known as the Harmonists, established by George Rapp about 1803 at Harmony, Butler County, Pa. After removing to Indiana and back again, one branch of it settled in Economy. Among its members were Bernhard Müller, and two of the sons of Robert Owen who had been connected with the Indiana community. Rapp died in 1847. Through prosperous business management the community had accumulated a sum which was estimated at nearly $500,000 at the time of the Civil War. From the beginning they had manifested a distrust of banks and banking institutions, and a large part of this sum was in bullion, the remainder being in government bonds.

In 1863, during the Civil War, the raids of the Confederate General Morgan in Kentucky, Indiana, and Ohio caused the secreting of this accumulation in an underground vault; and it seems to have remained hidden until 1878, when the in-

vestment of a large sum in a railroad then being constructed brought it out of concealment.

The accumulation contained a large number of comparatively rare dollars and half-dollars amounting to $75,000, according to information which there is very little reason to doubt. There were eight hundred dollars of 1795, thirty of 1798 with the small eagle, two 1796 half-dollars and one of 1797. In addition, there were French, Spanish, and American pieces to a value estimated at $12,600. It will be recalled that these pieces circulated freely almost up to the time of the Civil War.

This hoard would have been an ideal one for numismatic treatment because it afforded evidence of the circulation within a definite period of the pieces included. Unfortunately, with the exception of the record of the rare mint issues, no information regarding the remainder seems to have been preserved.

In presenting this material, the effort has been to give a general idea, rather

than specific or scientific treatment, of this phase of numismatics. It is hoped that analyses of several finds to be published later will give a further demonstration of the value of hoards and treasure trove.

BIBLIOGRAPHY

ARISTOPHANES. Frogs (vv. pp. 718–726, Brunck's edition).

BABELON, ERNEST. Le Trésor d'Auriol, et les Principales Trouvailles de Monnaies Grecques Primitives en Occident. Traité, Tome I, Part 2, pp. 1571–1584.

BLANCHET, ADRIEN. Recherches sur l'Influence Commerciales de Massalia en Gaule et dans l'Italie septentrionale. *Revue Belge de Numismatique*, 1913, pp. 291–398.

BLANCHET, ADRIEN. Les Trésors de monnaies Romaine et les invasions Germaniques en Gaule. Paris, 1900.

BLANCHET, ADRIEN, & GRUEBER, H. A. Treasure-Trove. Its Ancient and Modern Laws. *Numismatic Chronicle*, 1902, p. 148.

EVANS, SIR ARTHUR J. The Horsemen of Tarentum. *Numismatic Chronicle*, 1889, pp. 1–228.

EVANS, SIR JOHN. The Coins of the Ancient Britons, 1864.

GARDNER, PERCY. Coins of Elis. *Numismatic Chronicle*, 1879, pp. 221–273.

GIDE, CHARLES. Principles of Political Economy (Veditz' Second American ed. 1909, p. 238).

HAEBERLIN, F. J. Aes Grave. 2 v. 1910.

HEAD, BARCLAY V. On the Chronological Sequence of the Coins of Syracuse, 1874.

JOSEPHUS. Wars of the Jews, Book V, Chs. 10 and 13.

MACDONALD, GEORGE. Coin-Finds and how to interpret them. (In *Proceedings of the Royal Philosophical Society of Glasgow*, v. 34, 1902–1903, p. 282.)

MOMMSEN, THEODORE. Histoire de la Monnaie Romaine. 4 v. 1865–75.

MÜLLER, C. L. Numismatique d'Alexandre le Grand. 1855.

SCHLUMBERGER, G. L. Les Bractéates d'Allemagne. 1875.

HOARDS ARRANGED AS TO SITES

ANADOL, Rumania, 1895.

PRIDIK, E. Statères d'or trouvés à Anadol . . . *Bulletin de la Commission Impériale Archéologique* (Russe), 3. livr. pp. 58–92. *Rivista Italiana Numismatica*, 1895, p. 407.

AURIOL, France, 1867.

BABELON, ERNEST. Le trésor d'Auriol. *Traité des monnaies grecques et romaines*, v. 1, 1907, pt. 2, pp. 1575–1618.

BLANCARD, LOUIS. Le trésor d'Auriol.

BLANCHET, ADRIEN. Traité des monnaies Gauloises, pp. 227, 544.

CHABOUILLET, A. *Revue Numismatique*, 1869, p. 348; 1874, p. 164.

BLACKMOOR, England, 1873.

SELBORNE. On a hoard of Roman coins found at Blackmoor, Hants. *Numismatic Chronicle*, 1877, v. 17, p. 90.

BOSCO REALE, 1894.

BLANCHET, ADRIEN. Recherches sur la circulation de la monnaie en or sous les empereurs Romains. In *Revue Belge de Numis.*, 1899, p. 277.

CANESSA, CESARE. Le Trésor monétaire de Boscoreale. In *Le Musée*, 1909, p. 259. Il Ripostiglio di Bosco Reale. In *Rivista Ital. Numis.*, 1895, p. 494.

ECONOMY, Pennsylvania, 1878. The Economite Treasure, *Scott's Coin Collector's Journal*, 1881, p. 47.

VOURLA, Asia Minor, 1911.

GARDNER, PERCY. Note on the coinage of the Ionian Revolt. *Journal of Hellenic Studies*, v. 33, 1913, p. 105.

JAMESON, ROBERT. Trouvaille de Vourla, monnaies grecques des VI^{e} et V^{e} siècles. In *Revue Numis.*, 1911, p. 60.

VICARELLO, 1852.

GARRUCCI, R. Le monete dell' Italia antica, p. 4.

SAMBON, LUIGI. Recherches sur les monnaies de la presqu'île Italique, pp. 26, 29.

SOUTHANTS, England.

HILL, GEORGE FRANCIS. A hoard of Roman and British coins from Southants. *Numismatic Chronicle*, 1911, p. 42.

SAIDA, Syria, 1829, 1852, 1863.

ROUVIER, JULES. *Revue des études grecques*, 1899, v. 12, p. 380. *Revue Numismatique*, 1865, pp. 3–25. The treasure trove at Sidon, *American Journal of Numismatics*, v. 4, p. 76. (For same article, see *Numismatic Chronicle*, 1865, p. 179.)

WADDINGTON, W. H. Trouvailles de Saida et de Marmara. *Revue Numis.*, 1865, p. 1. (For same article, see his Mélanges de Numismatiques, p. 33.)

PUBLICATIONS

The American Journal of Numismatics, 1866-date.

Monthly, May, 1866–April, 1870.
Quarterly, July, 1870–October, 1912.
Annual, 1913–date.

With many plates, illustrations, maps and tables. Less than a dozen complete sets of the Journal remain on hand. Prices on application. Those wishing to fill broken sets can secure most of the needed volumes separately. An index to the first 50 volumes has been issued as part of Volume 51. It may also be purchased as a reprint for $3.00.

The American Numismatic Society. Catalogue of the International Exhibition of Contemporary Medals. March, 1910. New and revised edition. New York. 1911. xxxvi, 412 pages, 512 illustrations. $10.00.

The American Numismatic Society. Exhibition of United States and Colonial Coins. 1914. vii, 134 pages, 40 plates. $1.00.

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PUBLICATIONS

Ernest Babelon. Les Médailles Historiques du Règne de Napoleon le Grand, Empereur et Roi. Paris. 1912. Folio, lx, 430 pages printed in three tones, a special border for every page. Illustrating two hundred unpublished drawings of Napoleonic medals, ... by Chaudet and Lemot for . . . . the French Institute. $20.00.

Agnes Baldwin. The Electrum Coinage of Lampsakos. 1914. 36 pages. 2 plates. $1.00.

Edward T. Newell. The Seleucid Mint of Antioch. 1918. 137 pages. 13 plates. $5.00.

Edward T. Newell. Tarsos under Alexander. 1919. 47 pages. 8 plates. $2.50.

Bauman L. Belden. War Medals of the Confederacy. 1915. 12 pages. 1 plate. $1.00.

Bauman L. Belden. United States War Medals. 1916. 72 pages. 9 plates. $2.00.

Edgar H. Adams and William H. Woodin. United States Pattern, Trial and Experimental Pieces . . . . issued by the U. S. Mint from 1792 up to the present time. 1913. 204 pages. Illus. Cloth, $3.00.